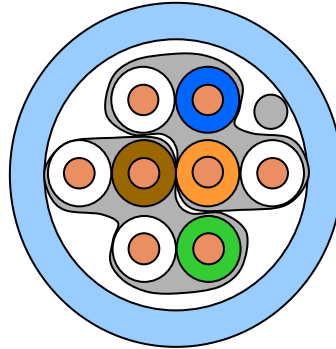




## UC500 S23 Cat.6a

### U/FTP



### Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)  
IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T; 10GBase-T  
IEEE 802.5 16 MB; ISDN; FDDI; ATM

### Standards

EIA/TIA-568-B.2-10 Draft 5.0  
ISO/IEC 11801 2<sup>nd</sup> ed.  
EN 50173-1  
EN 50288-10 Draft  
IEC 61156-5 (46C/783/CDV)

### Flame resistance

LSHF(FRNC): IEC 60332-1; IEC 60754-2; IEC 61034

### Construction

Conductor	bare copper wire, Ø 0.56 mm (AWG23)
Insulation	Foamskin Polyethylene, Ø 1.35 mm
Twisting	2 cores to the pair
Pair screen	<b>High Performance STP:</b> Al-laminated plastic foil, patented wrapping of two pairs each, drain wire AWG26 tinned
Cable lay up	2x2 pairs to the core
Sheath	LSHF, blue RAL 5024

### Mechanical properties

Bending radius	Installation	8 x Outer diameter
	Installed	4 x Outer diameter
Temperature range	During operation	-20°C to + 60°C
	During installation	0°C to + 50°C



## UC500 S23 Cat.6a

### Electrical properties

at 20°C ± 5°C

Loop resistance		≤ 176 Ω /km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 2000 MΩ *km
Mutual capacitance	at 800 Hz	Nom. 43 nF/km
Capacitance unbalance	(pair/ground)	≤ 1500 pF/km
Characteristic impedance	(1-100 MHz)	(100 ± 15)
	(100 - 250) MHz	(100 ± 18) Ω
Nominal velocity of propagation		Ca. 79 %
Propagation delay	Nominal	< 450 ns/100m
Delay skew	Nominal	< 15 ns/100m
Test voltage	(DC, 1 min) core/ core and core/screen	1000 V
Transfer impedance	at 1 MHz	≤ 50 mΩ /m
	at 10 MHz	≤ 100 mΩ /m
	at 30 MHz	≤ 200 mΩ /m
	at 100MHz	≤ 1000 mΩ /m
Coupling attenuation		≥ 55 dB

### Electrical data (nominal)

(at 20°C)

F	Attenuation	NEXT	PS-NEXT	ACR	PS-ACR	ELFEXT	PS-ELFEXT	Return loss
(MHZ)	(dB/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB)
1.0	1.8	100	97	98	95	105	105	-
4.0	3.4	100	97	97	94	105	102	27
10.0	5.4	100	97	95	92	97	94	30
16.0	6.8	100	97	93	90	93	90	30
20.0	7.7	100	97	92	89	91	88	30
31.2	9.6	100	97	90	87	87	84	30
62.5	13.7	100	97	86	83	81	78	30
100.0	17.4	100	97	83	80	77	74	30
125.0	19.5	95	92	75	72	75	72	26
155.5	21.9	94	91	72	69	73	70	26
175.0	23.3	93	90	70	67	72	69	25
200.0	25.0	92	89	67	64	71	68	25
250.0	28.1	90	87	62	59	69	66	24
300.0	30.9	89	86	58	55	67	64	24
400.0	38.3	87	84	48	45	64	61	23
500.0	43.0	86	83	43	40	61	58	22

### Technical data

Product code	Cable type	Brand name	Outer diameter mm	Fire load		Weight kg/km	Copper content	Tensile force
				MJ/km	kWh/m			N
1003514 - 00305BR	J-02YS(St)H 4x2x0.56	UC500 S23 Cat.6a 4P LSHF	6.9	501	0.139	44	24	100